profile is known to the MMS relay/server MMS-RS of the MMS Service Provider SPro, this enables it to undertake data type conversions/code conversions and file format conversions. Only those data types and data formats are then forwarded to a MMS user agent MMS-UA that it can process. The size of a file may change considerably through conversion. The sub-division of data into data types represents a broad classification of data that belong to different media types such as audio, text or static images. The data format, however, provides actual information about the coding of a certain data type such as MP3 coded audio file or a JPEG coded static image. The data format of a file is uniquely identifiable by the extension appended to the filename. For example, a static image coded to the JPEG standard has the extension "jpg" after the filename. The file name and the extension are generally separated by a full stop, for example: "holiday.jpg".

[0023] If an MMS relay/server MMS-RS receives a multimedia message MM that includes two MM elements MM-E1, MM-E2, where the first MM element MM-E1 contains a link to the second MM element MM-E2 and the data type or data format of the second MM element MM-E2 has to be converted before the multimedia message MM is forwarded to the recipient in accordance with the information from the MMS user agent profile, the link in the first MM element MM-E1 is errored after the conversion and can no longer be resolved.

[0024] Until now, there has been no provision for converting externally stored files that are linked from an MM element MM-E in accordance with the information in an MMS user agent profile of the receiver B and for adapting the link in the multimedia message MM after the conversion.

[0025] A multimedia message MM essentially includes a header and optionally a body that contains the multimedia elements MM-E. Since not only each multimedia message MM itself but also each individual element MM-E of the multimedia message MM essentially includes a header and a body, it is also possible that a link LK for referencing a file can be contained either in the header of the multimedia message MM and/or in the header of the relevant MM element and/or in the body. A method according to the present invention is used in which, for links within a multimedia message MM (i.e., between different MM elements MM-E), not only the data types and/or data formats of the MM elements are converted in accordance with the current MMS user agent profile of the receiver, but also the associated link within the MM. In a further development of this method, the aforementioned principle can be applied to externally stored files and their links; i.e., to files that are, for example, stored on a server EXT and are not part of the MM.

[0026] Two examples for the aforementioned mechanisms for coordinating links after conversion of data types and/or data formats are described below with reference to diagrams. Firstly, a case will be considered in which a link within a multimedia message MM between different MM elements remains valid after conversion. The second case concerns a link to a file stored on a server that is referenced from the multimedia message MM. Here, a link to incorporate multimedia objects is represented by way of example as a Uniform Resource Location or URL link. In theory, other types of links are possible, but because of their comparatively greater load during implementation, they are not considered further here.

[0027] 1. Link within a Multimedia Message MM:

[0028] A multimedia message MM that contains two MM elements MM-E1, MM-E2 arrives at the MMS relay/server MMS-RS of the receiver. The first MM element MM-E1 is an SMIL presentation; i.e., a presentation that is described in a language standardized by the World Wide Web consortium W3C for synchronizing multimedia contents as per [4]. The first MM element MM-E1 contains a link to a second MM element MM--E2; in this example, a file of the data type DT "static image" of the data format DF "GIF" that is characterized with the characteristic file identifier or extension "gif". The MMS user agent of the receiver is not however, able to display this data format. Consequently, the MMS relay/server converts the data format DF of the linked file in accordance with the MMS user agent profile into another data format DF (here, for example, JPEG, characterized by the extension "jpg" appended to the filename) before the presentation of the entire multimedia message MM to the MMS user agent. This summary is shown in the diagram in **FIG. 2**.

[0029] In accordance with the present invention, the link LK **1** to the second MM element MM-E2 is also reconciled after the conversion KONV. In this case, the extension in the link simply has to be adapted so that the new link LK **2** to the now converted element MM-E2 only differs from the old link LK **1** by the extension: Before conversion: LK **1**="/privat/holiday.gif"After conversion: LK **2**="/privat/holiday.jpg".

[0030] 2. External Link:

[0031] A multimedia message MM that arrives at the MMS relay/server MMS-RS of the receiver as per reference point **1** in the diagram of **FIG. 3** contains as reference point **2** a link LK **2** to an external memory location. In accordance with the present invention, before the multimedia message MM is forwarded to the MMS user agent of the receiver, a verification is carried out as to whether the data type and/or the data format of the file referenced by the link has to be converted in accordance with the requirements of the MMS user agent profile. If the MMS relay/server MMS-RS detects the need for a conversion, it has to first read the file from the given memory location and buffer it in the MMSE of the MMS service provider SPro for the purposes of conversion as per reference point **3**.

[0032] The file converted in accordance with the MMS user agent profile then cannot be re-saved in the external server EXT since it must generally be assumed that the MMS service provider SPro does not have any write rights to the external server EXT. Instead, the converted file must be stored in the MMSE of the MMS service provider SPro in the MMS relay/server or on another server that is connected to the MMS relay/server but not shown in this diagram.

[0033] By contrast with case 1 described above, an adaptation of the extension in the link is now no longer sufficient since, as a result of the new memory location of the converted file, the entire path has changed. Instead, the old link LK **1** must be completely replaced by a new link to the memory location within the MMSE of the MMS service provider SPro. This reconciliation of the link must occur before the multimedia message MM is forwarded to the MMS user agent of the receiver, see reference point **4** in the diagram in **FIG. 4**.